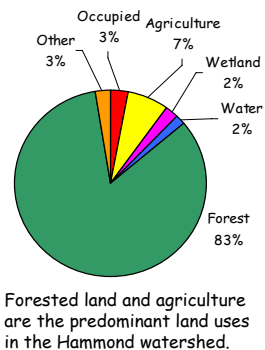
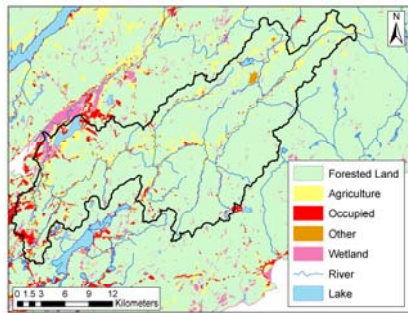


## Location

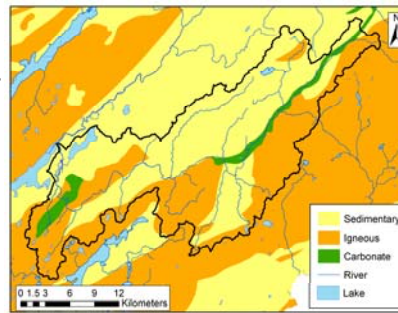
The Hammond River is located in southwestern New Brunswick and drains an area of 513 km<sup>2</sup>. The river contains 15 lakes and 16 tributaries within its range.



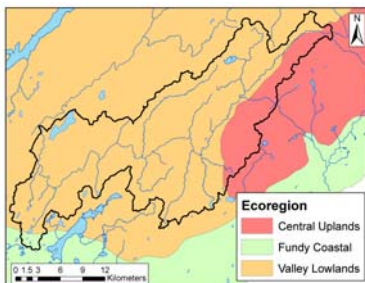
## Land Use



## Geology



## Physical Setting and Climate



The average summer temperatures range between 16 and 18°C while average winter temperatures range from -5 to -7° C. The Hammond watershed receives about 1200 mm of precipitation annually.

## Fish Community

There are at least 6 species of fish that typically reside in the Hammond River. These species include: Atlantic salmon, brook trout, smallmouth bass, smelt, striped bass, and sturgeon (DNR).

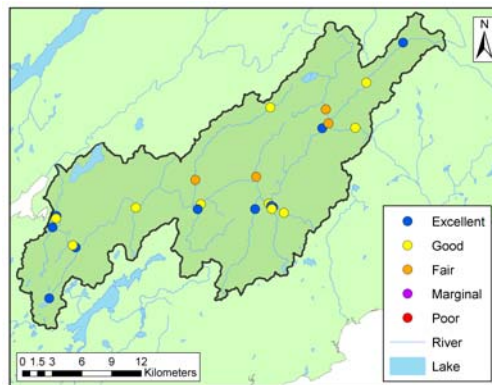
## Water Quality Survey (1975-2006)

The Water Quality Index (WQI) is a tool that allows water to be classified into different categories based on the CCME Guidelines for Freshwater Aquatic Life. The index is a number between 0 and 100, with zero representing poor water quality and 100 representing excellent water quality. The categories for the index are as follows:

Excellent: 95-100      Marginal:45-64  
Good:80-94            Poor:0-44  
Fair:65-79

The following parameters are included in the Water Quality Index: aluminum, ammonia, arsenic, chloride, copper, dissolved oxygen, iron, lead, nickel, nitrate, pH, sulphate, total phosphorus, and zinc.

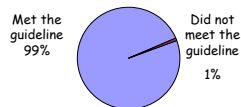
The map (right) depicts the location of the sample sites within the Hammond watershed and indicates the calculated WQI rating for each site.



## Key Indicators

In addition to using the CCME Water Quality Index, four key indicators of water quality were evaluated against available guidelines. E. coli is compared to recreational use guidelines, while the other indicators are compared with freshwater aquatic life guidelines.

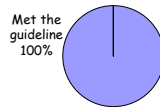
### Dissolved Oxygen



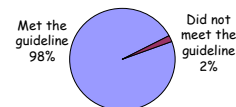
### E.coli



### Nitrate



### pH



## Community Involvement

In order to reduce the amount of degradation from agriculture, the Hammond River Angling Association (HRAA) has been providing education on best management practices as well as creating an extensive partnership to plant trees, fence areas to prevent cattle access and build agricultural river crossings.

Activities in the watershed include hiking, camping, boating and wildlife photography.



## Summary

- Based on the WQI, 10 sites were excellent, 10 were good and 4 were fair.
- Fair water quality may be due in part to land disturbance and clearing, especially the removal of riparian vegetation and allowing livestock direct access to streams, which results in increased erosion.
- Of the four key indicators, dissolved oxygen did not meet the guideline in 1% of the samples, E. coli did not meet the guideline in 10% of the samples and pH did not meet the guideline in 2% of the samples.

## Additional Information

This watershed summary was based on data from the Hammond River Angling Association Water Classification report submitted to the Department of Environment in 2000, as well as water quality data collected by the Department of Environment.

For additional information concerning this watershed please contact the Department of Environment, Sciences and Reporting Branch, at (506) 457 4844.